

T H E

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ACADEMY OF SCIENCES, PARIS.—EXPERIMENTAL  
PHYSIOLOGY.

AWARD OF THE MONTYON PRIZE.

(Commissioners: MM. Longet, Milne-Edwards, Ch. Robin, de Quatrefages, Claude Bernard, Reporter.)

TRANSLATED BY WALTER HAY, M.D., ASSOCIATE EDITOR CHICAGO MEDICAL JOURNAL.

EVERY problem of experimental physiology is generally so complex, that it would be delusion or rashness on the part of any single author to take upon himself alone its solution and exhaustion. These subjects, ordinarily, are illuminated only by a series of associated efforts, in proportion as our means of investigation are perfected, and as experimental analysis penetrates more profoundly into the mechanism of phenomena. These remarks apply with perfect accuracy to the difficult question of the innervation of the heart by the spinal cord, which has already been the subject of the successive investigations of a great number of distinguished experimenters.

At the end of the last century, Haller\* still considered the movements of the heart as being independent of all nervous influence. He founded his opinion upon the possibility of the

\* Haller, Memoire sur l'irritabilité, 1777.

continuation of the circulation in an animal deprived of its brain, and upon this fact that a heart torn from the chest may beat and contract.

It was at the commencement of the present century that Le Gallois\* discovered that the influence of the spinal cord is necessary to the maintenance of the pulsations of the heart, and he demonstrated experimentally that the destruction, either total or partial, of this nervous centre prevented the regular continuation of the circulation of the blood, even with the aid of artificial respiration.

Still later, Magendie, and a member of this commission† made use, for the first time, of a hæmometer, or cardiometer, with the intention to investigate and render more evident the modifications effected in the movements of the heart by the irritation of the spinal cord and of the nerves which originate therein. These experiments established the two following new results :

1st. The irritation of the sensitive spinal nerves induces a constant modification in the pressure of the blood, and an alteration in the pulsations of the heart.

2d. This action, which is of a reflex character, is not transmitted to the heart by the pneumogastric nerves, for it manifests itself even after the section of these nerves in the middle region of the neck.

In 1863, M. de Bezold‡ instituted experiments designed to throw light upon the influences which the spinal cord exercises upon the heart. This author established in his work two important facts. He showed first that section of the spinal cord between the occiput and the atlas, produced a very considerable diminution in the pressure of the blood in the large arteries, and that induces a retardation in the pulsations of the heart. He proved, moreover, that irritation of the cord below (posterior

\* Œuvres de Le Gallois, édition de Pariset, t. I. : *Experience sur le principe de la vie, et sur les mouvements du cœur.*

† Comptes rendus des séances de l'Académie des Sciences, t. XXIV, p. 1130.—Claude Bernard. *Leçons sur la physiologie du système nerveux*, t. I, page 271-275, 1858.

‡ Albert von Bezold, *Untersuchungen über die Innervation des Herzens*, 1863.

to) the section re-established the pressure of the blood, and caused it to ascend even above the normal amount, at the same time producing an acceleration in the cardiac pulsations. M. de Bezold believes that he has demonstrated by these last experiments, that the spinal cord reacts directly upon the movements of the heart, and it is at this conclusion, indeed, that he stopped.

But soon, MM. Ludwig and Thiry\* combatted this opinion, by interpreting, entirely differently, the facts, otherwise exact, established by M. Bezold; and MM. Ludwig and Thiry deny all direct nervous action upon the heart, relying upon the fact that the spinal cord separated from the brain always exercises its influence upon the pressure of the blood even when all the cardiac nerves, which unite the heart with the cord, have been destroyed by the galvano-caustic method. They proceed even to prove that it is not necessary to excite the spinal cord in order to obtain the results already indicated, for simple compression of the aorta by restricting the area of the circulation may determine an augmentation in the manometric pressure of the blood. As to the acceleration of the pulsations of the heart, which coincide here with the increase to the resistance to the circulation, it will be perceived later that it becomes necessary to associate it with the special action of an accelerator—cardiac nerve, whose functions, hitherto, had not been determined. However this may be, MM. Ludwig and Thiry recognized, as did their predecessors, that irritation of the spinal cord induces modifications in the circulatory phenomena; but instead of admitting that this influence is exercised directly upon the heart, as M. de Bezold had done, they concluded, on the contrary, that it is directed primarily upon the peripheric circulatory system, by means of the vasomotor or vascular nerves to react thence upon the central organ of circulation in an indirect or secondary manner. Such was the status of the subject of the innervation of the heart by the spinal cord, when new experiments, instituted by MM. Cyon and Ludwig

\* Ludwig et Thiry, *Ueber den einfluss des Halsmarkes aus den Blutstrom*, 1864.

are adduced to corroborate the conclusions preceding, and to develop their consequences. After having admitted, in fact, that the irritation of the spinal cord does not react immediately upon the heart, it remained to explain how the augmentation of sanguineous pressure, which it produces, could result from the direct action upon the peripheric circulatory system.

It is this mechanism that MM. Cyon and Ludwig have demonstrated, by showing that this influence of the spinal cord is transmitted through the mediation of vascular nerves, and especially by the splanchnic vasomotor nerves. Of all the vasomotor nerves of the body, the splanchnic nerves are evidently the most important, and the most capable of modifying the general circulation, by reason of the enormous blood-supply of the splanchnic organs to which they are distributed. M.M. Cyon and Ludwig demonstrate by the aid of accurate experiments, that when the splanchnic nerves are divided, effects are obtained similar to those which result from section of the cord between the occiput and the atlas.

In the two cases, the manometric pressure of the blood diminishes rapidly and considerably in consequence of the paralysis of the vasomotor nerves, and the enlargement of the peripheric vessels which retain the blood in the organs, and effect thus a depletion of the central vascular system. If the peripheric extremities of the divided splanchnic nerves be then irritated, the manometric pressure of the blood is perceived to increase and ascend by reason of the contraction of the splanchnic vessels which drives the blood from the abdomen, where it was accumulated and carried back in a relatively increased quantity, into the cardiac system. Lastly, after section of splanchnic nerves, irritation of the spinal cord separated from the brain, induces no longer, or only to a very insignificant extent, augmentation of the pressure of the blood, because nervous influence can no longer be propagated to the vessels in order to determine their contraction.

After all the preceding facts, it remains well established that the augmentation of the manometric pressure of the blood,

could not be the result of the immediate and direct influence of the cord upon the central organ of the circulation; but it would be wrong to come to the same conclusion with regard to the acceleration of the pulsations of the heart, which are observed ordinarily in a manner coincident with the augmentation of the pressure of the blood. Indeed, M. Cyon has proved that these two orders of phenomena can be produced separately, for he has shown that after the section of the splanchnic nerves, when irritation of the spinal cord no longer induces an augmentation of sanguineous pressure, this same irritation still renders apparent the acceleration of the pulsations of the heart solely.

In following up the explanation of this last phenomenon, M. Cyon has even succeeded in establishing clearly that this accelerating influence depends upon an immediate action of the spinal cord upon the heart, and he has demonstrated that it takes place through the intervention of a special cardiac accelerator nerve, which emerges from the spinal column with the third branch of the inferior cervical ganglion.

The direct influence of the spinal cord upon the heart, first indicated by Le Gallois, then recognized by M. de Bezold, actually exists; however, it is necessary to distinguish in the physiological explanation, the fact of the augmentation of the manometric pressure of the blood, from that of the acceleration of the pulsations of the heart.

The augmentation of the sanguineous pressure, results, evidently from the influence of the spinal cord upon the vaso-motor nerves, whilst the acceleration of the pulsations of the heart is, on the contrary, the effect of the direct action of the cord upon the heart itself by the intervention of the special cardiac accelerator nerve. However, if this cardiac nerve, the accelerator of the pulsations of the heart, as well as the splanchnic and vaso-motor nerves, can be, as has already been stated, influenced by mechanical irritation of the spinal cord, it happens likewise, that in the normal or physiological state, these nerves are put into functional activity in an indirect or reflex manner by excitement emanating from the nerves of sensation.

We have already stated at the beginning, that irritation of the nerves of sensibility at the surface of the body, that is to say, irritation of the spinal roots, may react upon sanguineous pressure, and upon the pulsations of the heart. But these reflex actions are even more general, and the new point upon which we wish particularly to direct attention, is that movements take place in the periphery, or central circulatory system, which are the results of the excitement of the nerves of sensation distributed to the internal surface of the heart. It has been known for a long time that the internal surface of the ventricles of the heart were endowed with sensibility: a member of our commission\* had observed that by touching with a thermometer for example, the internal surface of the ventricles in sheep, the pulsations of the heart manifested immediately a great acceleration which could not be explained in this case but by a reflex reaction upon the cardiac accelerator nerve. But, besides this reflex accelerator influence upon the heart, M. Cyon has shown that there exists, still further, a reflex action at once distensive of the peripheral vessels, and depressive of the cardiac circulation, which likewise has for its points of departure excitement of the sensory nerves of the heart.

This important discovery is found detailed and developed in one of the memoirs upon the innervation of the heart presented by M. Cyon at the competition in experimental physiology, entitled "*Upon the reflex action of one of the sensory nerves of the heart upon the motor nerves of the sanguineous vessels.*"† In this work, upon which the commission has brought to bear especially its criticism and judgment there is discussed in reality, the discovery of a new sensory nerve of the heart endowed with functions remaining up to this time unknown. We will first examine the anatomical arrangement of this nerve.

\* Claud Bernard, *Legons sur les liquides de l'organisme*, t. I, p. 120, 1859

† M. M. E. et M. Cyon ont communiqués a l'Académie (25 Mars, 1867), un résumé de leurs recherches sur l'innervation du cœur, exécutés sort a Berlin, dans la laboratoire de M. du Bois Raymond. Soit à Leipsic, avec le concours de M. le professeur Ludwig. C'est M. E. Cyon qui a présenté les travaux aux concours de physiologie expérimentale, et qui a mis les membres de la commission a meme de renfermer ses expériences.

In the rabbit, upon which M. Cyon has particularly experimented, this nerve ordinarily originates by two roots, one of which proceeds from the trunk of the pneumogastric, and the other from the superior laryngeal nerve. Starting from its origin in the superior region of the neck, the sensory cardiac nerve descends parallel to the carotid artery by the side of a filament of the cervical sympathetic, which accompanies, without ever uniting with it.

After having reached the thorax, the sensory cardiac nerve anastomoses with the filaments proceeding from the first thoracic ganglion, and is soon lost in the substance of the heart, or rather in the dense and compact cellular tissue which is situated between the origins of the aorta and the pulmonary artery. In order to experiment upon this nerve, it is laid bare in the living animal, in the middle region of the neck, then it is divided in order to experiment upon the two extremities successively, at the same time that a hæmometer (hæma-dynamometer) is applied to the carotid artery in order to observe the variations which shall supervene in the pressure of the blood. Galvanic irritation of the peripheric, or inferior extremity of this nerve, produces no pain, and remains absolutely without effect upon the manometric pressure of the blood, whilst the galvanic irritation of the superior or central nervous extremity, is on the contrary, painful, and induces in the manometer applied to the carotid artery a considerable depression of five or six centimetres in the column of blood.

This immediate reduction of the pressure of the blood under the influence of the irritation of the central and of the sensory cardiac nerve, is a constant result which has been reproduced under the eyes of the members of this commission; the sanguineous depression coincides exactly with the nervous irritation, and is removed as soon as that ceases. After having established this remarkable reflex of the sensory cardiac nerve upon the blood pressure, it is still necessary to explain its mechanism; it is to this that M. Cyon especially devoted himself. First, upon what organs did this reflex action exert



itself? Was it upon the general muscular system, upon the heart or upon the vessels?

In order to eliminate the influence of general movements (which, otherwise, would have augmented the sanguineous pressure instead of diminishing it), the rabbits were paralyzed with curare, which destroys rapidly the properties of the voluntary motor nerves, and permits the persistence, for a long time, of those of the vasomotor nerves, and of the nerves of sensibility, upon animals thus prepared, the irritation of the central extremity of the sensory nerve of the heart, no longer produced any reaction upon the paralyzed limbs, whilst this irritation induced in the manometer the same considerable depression of the blood of 5 or 6 centimetres. It was not any longer upon the heart that the reflex action bore immediately; for after having destroyed all the nerves which return to this organ—irritation of the central extremity of the sensory cardiac nerve still induced diminution in the blood-pressure. Thus we are induced, by the method of exclusion, to suppose that the reflex action ought to bear especially upon the peripheric vascular system; but an induction would not suffice: there was still wanting a direct demonstration, which M. Cyon has given, in pointing out, that when a section of the splanchnic vaso-motor nerve has been previously effected, irritation of the central extremity of the sensory nerve of the heart, no longer produces in the manometer the sanguineous pressure which was previously observed.

Definitely, every experimental analysis which precedes, demonstrates that, in the experience of M. Cyon, irritation of the sensory nerves of the heart reacts exclusively upon the vasomotor nerves in order to produce a depletion of the heart, and, consequently, a diminution of the sanguineous pressure as indicated by the manometer. It is in order to express clearly this constant fact of manometric depression, succeeding irritation of the sensory cardiac filament, that M. Cyon has given this nerve the name of *depressor nerve of the circulation*.

Now, there no longer remains to be made any explanation, for the clear comprehension of the entirely special character of this reflex depressing action, which this sensory nerve of the



heart exercises. Physiologists are already acquainted with *direct paralyzing* influences, which, in place of inducing contraction of the muscles, paralyze and relax them. The paralyzing influence of the pneumo-gastric nerve upon the heart, is one of the most conspicuous examples of this singular nervous reaction. Now, at this time, we must admit there are *reflex paralyzing* nervous influences, and the reflex action of the sensory nerve of the heart is precisely of this sort. We have determined, indeed, by direct observation, the paralysis and dilatation of the peripheric arterial vessels at the moment when the sanguineous depression takes place under the influence of the irritation of the sensory nerve of the heart. It is impossible to give, at once, the explanation of these phenomena of nervous paralysis, because they are still involved in many theoretical obscurities, but they are, therefore, less worthy the attention of physiologists, for unexplained facts always contain the germs of the scientific truths of the future.

To recapitulate, the study of the innervation of the heart by the spinal cord has been established of late upon entirely new foundations, thanks to a series of investigations, of which we have believed it our duty to give a rapid epitome in this statement, for the reason that they are all associated, and each is necessary to the understanding of the other.

The discovery of the depressor nerve of the circulation, reveals to us facts of the highest importance, which are destined to throw a vivid and unexpected light upon the problem, hitherto so difficult and so complicated, of the physiology of the nerves of the heart. It has been shown that the heart can, by the aid of the nerves of sensibility with which it is provided, regulate, in some degree, its dimensions according to its necessities, by operating by reflex action upon the general circulation, and we can now comprehend how this perpetual equilibrium, which must exist between the central and the perpetual circulation, is established.

If the sensibility of the walls of the heart be excited by too great sanguineous repletion, there results an energetic reflex action which dilates the capillary vessels, and attracts the blood

to the periphery. If, on the contrary, the internal sensibility of the heart is too feebly excited, the peripheral vessels contract and force back the blood toward the centre of circulation.

All the discoveries of M. E. Cyon are conquests by the delicate and difficult method of vivisection. The Academy can not too highly encourage this physiological direction, which alone permits us to carry experimental analysis into complex organisms in order to dissociate phenomena, and to apprehend their essential mechanisms. It is for this reason that the committee has unanimously awarded to M. E. Cyon the prize for experimental physiology for the year 1867.

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After having regularly awarded the prize, to the work of which we have just now given a report, your committee believe it their duty to ask of the Academy a *second* prize in Physiology, in order to do honor to a series of investigations into the generation and dissemination of intestinal worms, the results of which are recapitulated in a publication by M. Baillet entitled: *Natural history of the intestinal worms of the domestic mammifera*. This work differs altogether from that which precedes it, and, as its name indicates, is a treatise upon Zoology rather than upon Physiology. However, many of the facts in the history of the propagation and migrations of intestinal worms appertain to physiology in this regard, that this history can only be comprehended through an acquaintance with the special properties of the tissues of these creatures, and by the determination, of the condition most especially favorable, in the midst of which these properties of tissues are permitted to be developed.

In order to restrict themselves to the spirit of the competition (conours) they will direct their criticism exclusively upon those portions of the researches of M. Baillet which refer to the embryogenesis and development of intestinal worms.

We will specialize, at first, a group of experiments, in which M. Baillet has studied the influence exercised by the surrounding media upon the development of the eggs and embryogene-

sis of certain species, at the same time that he has determined the remarkable powers of resistance with which these eggs and embryos are endowed. Whilst adapting them to different temperatures, whilst surrounding them with a liquid alternately pure or corrupt, M. Baillet has seen the segmentation of the yoke arrested, retarded or accelerated, the development of the embryos advance in a progressive manner or suspended, and that, too, upon several repetitions, without, apparently, damaging the embryos. He has thus been able to protract during eleven months, the embryonic development of certain species of ascaris, which, in their normal conditions, according to their temperature, would, in ten days or a month, pass this first phase of their existence.

Other experiments, which associate themselves with the preceding, show us the young ascarides, already formed, remaining stationary, under certain conditions, during a period which might be called indefinite. Mr. Baillet has preserved during nearly two years, under the water, or in wet ground, or simply upon plates of glass, eggs of four species. *A. Megalocephala*, *A. Mystax*, *A. Suilla*, *A. Marginata*, in which the well-formed embryos are active up to the last day. All these experiments are of a character to prove that the eggs and the embryos of intestinal worms are endowed with a vital tenacity which enables them to resist certain injurious influences of their surrounding medium, and of awaiting, in a latent phase of life, conditions favorable to their development, M. Baillet has rightfully insisted upon these interesting facts. He has been able also to extend his observations upon new species; but he had already been preceded in this path by M. Davaine and M. Leuckart. The first of these authors had determined the property possessed by the eggs of certain intestinal worms of being developed in the dry state; and in relation to the duration of the embryonic development, he had obtained results still more remarkable, for he had preserved in water during five years, eggs of *ascarides lumbricoides* containing embryos full of life.

M. Baillet has also made experiments with the view to

throw light upon the history of *sclerostoma equinum*, and of *strongylus filiaris* of the sheep. It results from these researches that the strongle whilst multiplying on the spot, also propagates itself from one individual to another by means of migration of its embryos. That they may be able to bear the hazards of the route, these are endowed with remarkable vitality. This considerable vital resistance of the embryo of the strongle, compared with the adult worms, had already been remarked in the last century by Camper, upon the strongle of the calf, and M. Davaine, who reports the fact, has first deduced therefrom the consequences which are relative to propagation and migration of these worms. But the experiments of M. Baillet are likewise very interesting, in that they have shown that the embryos of strongles can also, although to a less degree than the young ascarides, have the property of remaining stationery in their development, whilst they may not have found the medium for which they were designed.

M. Baillet has further performed numerous experiments upon the cestoids, entering largely upon the path opened by the two savants whose works were honored by the Academy in 1853.

Whilst confirming the general facts, of which we owe the knowledge to MM. Von Siebold, Van Beneden and Kuchenmeister. M. Baillet has been able to fill up a certain number of lacunæ, to resolve several difficulties which the labors of his predecessors had left in the science, and to refute some errors which tended to propagate themselves, reinforced as they were by great names. But we will not follow the author in the examination of these question, which belong rather to the domain of Zoology than of Physiology.

To recapitulate: although the work of M. Baillet does not include, strictly speaking, physiological discoveries, however it is an important work which has the merit of having confirmed and extended experiments which are of a character to encourage general physiology.

The committee, in honoring the work of M. Baillet, has designed by encouraging zoologists in the experimental study of

the tissues of lower animals; and, on the other hand, by recompensing two orders of investigation, performed in totally different directions, it has desired to prove that it comprehends physiological science in its broadest sense, and that it accepts, as belonging to it, all those studies which contribute to the explanation of the phenomena of life. Such is the summary of the motives which have induced the committee to ask for M. Baillet a second prize of Physiology.

The committee has, moreover, directed its attention to a memoir of M. Moura, entitled "The act of deglutition, its mechanism."

The act of deglutition presents a decidedly complex mechanism, which, since the days of Hippocrates, has exercised the sagacity of a large number of physiologists. M. Moura, having at his service laryngoscopic experiment and observation, has assumed in turn the study of this physiological problem, and he has had the merit of adding interesting facts to this subject, already so frequently investigated by skillful experimenters.

From the summary of the researches of M. Moura, it results :

1. That deglutition is effected in a different manner, in man and in the dog.

2. As to the deglutition in man, the three periods assigned to the act should be reduced to two. According to M. Moura, deglutition really commenced only when the alimentary matters disseminated upon the tongue have arrived at the free edge of the epiglottis. From which it results that the passage of the food across the isthmus of the fauces is the last phenomenon of mastication, and does not really belong to the act of deglutition. During this passage only the lower third of the epiglottis closes the larynx; whilst the upper two-thirds remain elevated, and unite with the larynx in forming an orifice, and an irregular conduit into which the bolus is pushed back by the base of the tongue.

3. Fluids are collected into the same channel as the food, and are not introduced into the pharynx by passing over the sides of the epiglottis.

The committee accords to M. Moura an honorable mention for his experimental investigations into the phenomena of deglutition.

In conclusion, the committee of the Concours of Experimental Physiology, for the year 1867, decree the prize for experimental physiology to M. E. Cyon, for his work upon *the innervation of the heart by the spinal cord*. It asks of the Academy a second prize of experimental physiology to honor the investigations of M. Baillet upon the generation of intestinal worms in domestic animals. And it awards an honorable mention to M. Moura for his work on deglutition.

The Academy adopts the propositions of the committee.

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## SYPHILIZATION AS TREATMENT FOR SYPHILIS.

BY N. ROSENBERG, M.D., CHICAGO, ILL.

CASE No. 1.—Mr. D. C.; aged 40; native of Ireland; saloonkeeper by occupation; habits intemperate. Applied at my office June 1, 1866, and gave as history, that he had contracted syphilis 10 years previous, and had been treated by various physicians, and taken a large quantity of drugs, containing, as he believed, more or less mercury. When I first saw him, he presented the following symptoms: face flushed and swollen; complained of great weakness; lower extremities swollen, and on the anterior aspect of both were large, deep ulcers of several years standing, discharging foetid matter in large quantity, so he was obliged to have a room for himself. I commenced to syphilize him, June 1st, 1866, after the manner prescribed by Prof. Boeck, and continued for four months, when further inoculation failed. At this time the sores on the legs were entirely healed, and his general health, according to his own statement, as good as it ever had been, and has subsequently remained so. He now holds a place as conductor on one of the street cars.

CASE No. 2.—Mr. and Mrs. F. A.; natives of Germany; about 30 years of age; contracted syphilis in 1864; were treated for a long time in New York hospital, and after that by several physicians. Applied on the 8th day of May, 1866, presenting the following symptoms: the husband was very weak, had sore throat, and looked like a person suffering from consumption, and was unable to work, but had no sores on his body. The wife had several sores on different places, her eyes were affected, and she had a sickly appearance. Their child, two months old, died shortly before I knew them, of syphilis. I syphilized them the first time on the 8th of May, 1866. They left me, as completely cured, three months after. In September, 1867, they got a child, free from any symptoms of syphilis. The child is now ten months old, and is very healthy. It can be seen here in Chicago.

CASE No. 3.—O. J.; 35 years of age; native of Norway; contracted syphilis in 1860; was in the American army during the war, and treated by several physicians while there. He states to have taken a great deal of mercury, but without any benefit. He had several boils and large discharging sores on many places. I commenced to inoculate him on the 12th of February, 1866. He went off as perfectly cured after treatment for three months and a half, and feels now better than he ever did, according to his own statement.

CASE No. 4.—Mr. B. C. G.; 59 years of age; native of America; contracted syphilis in 1850; treated by several physicians; taken a great deal of mercury, and was given up by them as incurable. He had big discharging sores all over, could not wear boots, and could scarcely walk. I commenced to inoculate him on the 16th of May, 1866. The inoculation had a great effect upon him—the sores healed, and by and by he left me as completely cured, after four months treatment.

CASE No. 5.—Mrs. L. McK.; 44 years of age; native of Ireland; contracted syphilis twelve years before I saw her; she confessed to have been a prostitute; had big sores on different places, and had been treated by many physicians. I commenced to inoculate her in 1865. She got perfectly well in three months.



CASE No. 6.—Child, Miss O.; 10 years of age; native of Norway; supposed that she contracted syphilis in a privy, about four months before she came to me, at which time she was emaciated and anemic; she was rather poorly developed; extensive ulceration on both labia majores, with several smaller ulcers, and quite a number of condylomes about the rectal orifice; had had sore throat two months previous, but no eruptions on the skin; she had never been under treatment; her general health was poor, and she suffered great pain from the above mentioned difficulties. I inoculated her the first time on the 9th of July, 1866, and continued to treat her for a period of three months, when the sores were entirely healed, the condylones disappeared, and her general appearance so much improved, that she could hardly be recognized.

CASE No. 7.—I. T.; 20 years of age; colored man; native of America; contracted syphilis five years before he came to me; had been treated by several physicians; he stated to have suffered much pain in the breast; had big discharging sores under both his feet; was very weak, and could scarcely walk. I commenced to inoculate him on the 30th of July, 1866, and he was perfectly cured after three months treatment, and he is now fatter and stouter than he ever was.

CASE No. 8.—Mrs. C. L.; 45 years of age; native of Norway; contracted syphilis in August, 1867; was treated by an eminent physician here in this city for five months, but with no apparent benefit. I commenced to inoculate her on the 1st of March, 1868. She got completely cured in two months.

I have treated about three hundred syphilitic cases here in Chicago by syphilization. Many of those were given up as incurable. The treatment works here with astonishing effect, and I believe we shall, by syphilization, be able to cure all cases of secondary and tertiary syphilis.

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## PROCEEDINGS OF THE CHICAGO MEDICAL SOCIETY.

SINCE the last report of the proceedings of this society, many instructive cases have been reported at its weekly meetings. During the summer the meetings will be held monthly. The following are among the most interesting cases in which pathological specimens were presented:

*A case of placenta prævia, in which the fœtus was born with the membranes intact.*—Dr. Wanzer presented a fœtus of the eighth month, covered with the placenta and enraptured membrane, which had been delivered with the double complication of breech presentation, and placenta prævia. The patient had suffered from frequent hæmorrhages for two months previous to the delivery, and yet made a rapid recovery.

*Grey hepatization of the lungs not attended with cough.*—Dr. Durham exhibited the lungs of a female patient, who had for some months suffered from diarrhœa, abdominal pains and ascites. The diarrhœa was the first marked symptom preceded by considerable debility. There was absence of pain in the chest and cough.

The autopsy revealed not only tuberculous disease of the mesenteric glands, with peritonitis, but also most extensive gray hepatization of the lung, with purulent deposits.

*Singular fracture of the vertebra.*—Dr. Bogue presented the vertebra of a patient at the Cook County Hospital, who had fallen in front of a hand-car in rapid motion, so that the hand-car, in passing over, doubled him forward, producing a fracture of the last dorsal vertebra.

There was complete paralysis of sense and motion below the seat of fracture. The patient lost control over the evacuations of the rectum and bladder, and suffered from great prostration and enormous bed sores.

Death followed in thirty-seven days.

At the autopsy the body of the bone was found broken, the upper fragment having slipped forward and upward. The ribs were dislocated from their attachments. There was quite firm union of the bony tissue with absorption of the intervertebral substance.

The canal was still open, although very irregular at the point of fracture.

*Ciliary nerves.*—Dr. Holmes presented an eye which he had removed for a painful irido-choroiditis of thirteen months duration, the pupil being closed with lymph and the globe atrophied.

The specimen had been macerated two days in water, and then placed in a solution of bichromate of potash. It was specially interesting as presenting to view the minute branches and meshes of the ciliary nerve, as they lie embedded in the choroid. The choroid and sclerotic separated almost spontaneously on bisecting the globe, and yet were held together by the nerves at the points where they passed through the sclerotic. These minute nerves could be seen on slightly raising the choroid from the sclerotic. With a magnifying glass, the rich supply of nervous fibres in the ciliary bodies, could be distinctly seen.

*Removal of a large uterine tumor.*—Prof. Miller exhibited a large uterine tumor, of which he gave the following exceedingly interesting history:

Mrs. —, a German woman, 23 years of age, was delivered of a child sixteen months ago. Eight months subsequent to this confinement she was seized with pains, and supposed she had a miscarriage, a midwife being in attendance. For a period of eight months she suffered from frequent attacks of hæmorrhage, pain in the abdomen, and considerable exhaustion. She consulted several physicians of well known skill and reputation, who diagnosticated the disease as inverted uterus.

Prof. Miller was first called to the case to reduce inversion. Upon making an examination, however, he discovered that the supposed inversion of the uterus was really a large tumor protruding from the os.

The growth was so long and its attachment so broad that it was almost impossible to introduce the sound into the cervix, without at the same time drawing down the tumor. If this was done, the sound could be readily passed nearly two inches and a half into the uterus.

Although the attachment of the tumor was very broad, there was little difficulty in applying the chain of the ecraseur, and removing the whole growth with scarcely any loss of blood.

The tumor was fibrous in character, measuring three inches in its long, and two in its short diameter.

The specimen presented an exception to the rule that such tumors are usually attached by narrow pedicles.

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#### REMARKABLE CASE OF PLACENTA PRÆVIA,

*Spontaneous Delivery and Recovery. Related to the Chicago Medical Society, with pathological specimen presented. By HIRAM WANZER, M.D., Chicago, Ill.*

MR. PRESIDENT AND GENTLEMEN:—I have a pathological specimen—a foetus, at about six and a half months, for the examination of the society this evening. Having not been in attendance, nor an inspector of the parturient process, I am obliged to the family for my data in the antecedents of the case.

I was called on the 19th of April ult., at 8 o'clock A. M., to Mrs. B——, an American, aged 23, who, just previous to my arrival, had given birth to this foetus. She stated that her previous health had been good; that she had been married eight years, and given birth to three children; that her previous gestations and the delivery were natural; that nothing abnormal presented in this case, until eight weeks previous, when she began flowing, and during that time she had lost daily as much blood per vaginam, as she was accustomed during her catamenial period; that eight days previous, she

began to have some labor pains, commencing at about noon and disappearing at midnight, when there was quietude obtained; that the periodicity continued in this manner for four days, when more active pains supervened, recurring frequently and with greater severity until the morning of its birth. The hæmorrhage being the same in quantity during her parturient efforts as before.

The second day previous to my being summoned, a German midwife was called, who has informed me that the os uteri was rigid and undilated. Her services being dispensed with, an intelligent physician was sent for, who administered *Morphia*, in order that she might procure some rest from her long fatigue. He states that there was a degree of rigidity of the os at the time, and that it only dilated to the size of a three cent piece; that the pains were considered inefficient, and of a neuralgic character. I found the following morning she had given birth to this fœtus, as previously stated, with the membranes entire. It was a breech presentation; the placenta, as you see, is firmly attached by the arterial and venous radicles of its structure with the chorion, excepting its free peripheral border, where it is slightly detached. This firm coalescence extends over the nates of the child, on the right side as far as the shoulder, also on left side as far as the crest of the illium. The maternal surface of the placenta denuded of the membranes, has a fleshy look, and is divided into numerous sulci or small lobes. Its extensive surface of attachment to the mucus membranes of the neck body, and a portion of the fundus of the uterus. On the right side, expanding by the physiological growth of the child, and with the regular development of the uterus, accounts for its thinness, and in part for the anomaly it presents. Will the society explain how far the specimen is pathological, and the cause of such expansion, and extensive surface of attachment? Not only rare, as I believe, and interesting as it is, might it not have arisen from the abnormal shortening and traction of the umbilical cord, and through the diaphanous membranes, where, covered by the placenta, are seen the fœtus *in situ*



floating in the amniotic fluid with the cord (tense) around its neck. The mother states that she felt motion in the child from the time she began flowing to the time of its birth. The patient, at the time of my arrival was flowing considerably, which completely subsided under the administration of *Tinct. Ergot*, pressure over the uterus, and moderately tight bandage. Her countenance wore a somewhat blanched appearance, but there was not that degree of anemia we might anticipate from such prolonged hæmorrhage. After sufficient contractility of the uterus was secured, I administered every four hours, 20 gtt. *Tinct. Ferri Murialis*, alternated with wine and nutritious diet. On the fifth day she was convalescent, and able to attend to her household duties. Authors, both ancient and modern, have agreed that among all the causes which make labor difficult, there are none fraught with so much peril to the mother as placenta prævia. The ratio of maternal mortality being even greater than the two most fatal epidemics of yellow fever and Asiatic cholera, and more than twice that of lithotomy.

Gottleib Thacher, professor, of Leipsic, wrote a dissertation in 1709. One of his observations was upon the death of a woman from flooding, at the end of pregnancy. The autopsy revealed that the placenta was attached to the cervical portion, and closed the os uteri. The membranes were unbroken, and intimately connected with the whole of the internal surface of the uterus.

Dionis, who wrote in 1721, while recognizing the fact that the placenta is often found presenting the os uteri, controverts the opinions of Mauriceau, that its detachment was caused by the shortening of the cord.

Lemotte says there are none more perilous than that in which the afterbirth presents before the child.

Hæmorrhage, says Delneyre, is a fearful occurrence to a woman. It may be slight or considerable, dependant upon the partial or total detachment of the placenta during convulsions, with which the mother may be attacked, or from the attachment of the placenta upon the os.

Conquest says that hæmorrhage from this cause, places the woman in the most imminent danger.

Dr. Collins says the attachment of the placenta to the mouth of the womb, is one of the most dangerous complications to be met with in the practice of midwifery.

Dr. John F. Ramsbotham says, a woman placed in this perilous situation, therefore, holds her life under a very uncertain tenure.

Mr. I. Ingleby remarks that the patient is necessarily exposed to danger of a peculiar kind, imminent in degree, involving the deepest responsibility, and demanding the exercise of the highest judgment.

Madam La Chappelle remarks, for these reasons it follows that hæmorrhage, which depends upon the adherence of the placenta to the internal orifice of the uterus, is one of the most dangerous accidents to which women are exposed during their pregnancy.

The able writings of Cazeau, Dr. F. Churchill, and Prof. C. D. Meigs corroborate the opinions of those distinguished writers mentioned.

I will not enter this evening upon the pathology and treatment of this most appalling accident in the parturient woman, as each case has not only its own specific type, but also its indications for treatment. I will simply confine myself to the case reported, and I accord fully with the testimony left us by those eminent men mentioned. The question suggests itself, had we the early management of the case, would it have been prudent to expedite the delivery, or leave her as she was to the unassisted powers of nature, which managed the case so well without our interference. As before stated, the hæmorrhage never exceeded her daily catamenial loss. The patient being robust and of unusual constitutional vigor, under the circumstances, I think non-interference was strongly indicated. The extensive surface occupied by the placenta would have been a barrier, in rupturing the membranes and delivery by version without perforating them, which would have been no easy matter, bound as it was to them by the pla-

central vessels ; and, furthermore, it would have exasperated the hæmorrhage. The hæmorrhage, no doubt, occurred from the gradual and partial detachment of the placenta from the uterine walls. The want of the dilatation of the os, the physician states, was fourteen hours previous closed and rigid. It was in consequence of the firm attachment of the placenta to the os, hermetically sealing it, except at the point whence the hæmorrhage proceeded. May not this have been conservative, acting as a tampon for the prevention of an exhausting hæmorrhage, until the complete detachment of the placenta, the dilatation of the os, and lastly the expulsion of the foetus ? I think cases of spontaneous delivery in placenta prævia are very infrequent.

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## BILIARY CALCULI.

BY E. W. BOYLES, M.D., OF CLAY CITY, ILL.

**CALLED**, June 6th, 1867, to see Mrs. W. ; aged 50 years ; nervo-bilious temperament. Found her suffering intense pain in right hypochondriac region ; nausea and vomiting ; pulse quick and feeble ; bowels constipated ; urine light colored. Upon examination found considerable enlargement and tenderness in right hypochondrium, extending into the umbilical and right lumbar regions. In fact, most all of the symptoms characteristic of acute hepatitis. Owing to the suddenness of the attack, and the paroxysmal character of the pain, I was led to suspect the presence of gallstones. Stated my opinion accordingly, and subsequently ordered the dejections examined therefor, but none were found. I gave opiates, and ordered fomentation. Called again next day and found my patient much relieved. She got up in a few days and attended her usual household duties, but tenderness and enlargement of the liver still remained to a considerable degree. I put her upon the use of nitro-muriatic acid—could not use mercurials, owing to the great susceptibility of the system thereto.

In September she was again confined to her bed for a few days with an attack similar to the first, though not so severe; after which she resumed her household duties. Treatment continued, together with various local remedies, such as iodine ointment, pustulation, blistering, etc.

January 4th, 1861, I was again called to see her. Tumor in the side larger, and more circumscribed. I became convinced that an abscess was forming, and used means to hasten the process of suppuration, fomentations and poultices, but the tumor remained hard—no fluctuation. I began to fear schirrhus; patient considerably emaciated and weak, but no appearance of jaundice. Digestion remarkably good, and plenty of bile in the stool.

The last of February, tumor began to point at the upper border of right lumbar, near the line of the umbilical region. March 1st, discharging slightly through two small sinuses about one and a half inches apart, which openings I enlarged with the lancet, after which discharged freely a fluid about the consistency and appearance of glycerine, which continued, producing great prostration; gave supporting remedies freely, in which iron predominated.

May 2nd, I was sent for again. Patient said to be suffering a great deal of pain; discharges from the abscess ceased, bulging between the openings—thought it must be lanced again. I was not at home at the time, and did not call until next day, when I found four gallstones had been discharged through the inferior opening, the first one being as large as a bird's egg, irregular in shape, weighing grs. xvij; the others about one-half the size and pyramidal in shape, with smooth, bright surfaces. Upon manipulation, four others were discharged whilst I was there. Others were discharged from day to day, until one hundred and six had come away, weighing, in the aggregate, two hundred and fifty grains. Most all of them pyramidal in shape, with smooth, bright surfaces. What seemed strange to me, there was no appearance of bile in the discharges from the abscess until May 20th, and then for a few hours only, and twice since that time, and at each there was more pain and gastric disturbance.

The upper opening has entirely closed, and the discharge from the other gradually growing less. The patient is rapidly improving, with every prospect of complete recovery; was at my house to-day (June 25th, 1868) visiting, having rode two miles in a spring wagon.

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## NOTES AND OBSERVATIONS IN GENERAL PRACTICE.

BY JOHN FORMAN, M.D., EDINBURGH.

### PAPER I.—ACUPRESSURE.

ACUPRESSURE, first proposed by Sir James Simpson, of Edinburgh, may be truly termed a great acquisition, deserving the attention of every surgeon in the land.

It has been proposed in Edinburgh, also in the Aberdeen Infirmary, by Professor Pirrie and Dr. Keith, to be at once as reliable a hæmostatic agent as the ligature, possessing the advantage of much easier application, no assistant being required as in the case of the ligature. But its great superiority is the acquisition of union by the first intention, or by primary adhesion without the formation of pus. In the case of the ligature we are all aware that such a happy result can not be obtained, the laceration of two of the coats of the artery, the strangulation and destruction of the external coat, the ligature running for several days as a seton in the wound, under suppuration more or less inevitable, consequently heading by the first intention can not be obtained. We are, therefore, warranted in urging the great superiority of acupressure over the ligature as a reliable and expeditious hæmostatic agent with the additional and most important advantage of promoting healing by first intention.

Notwithstanding a certain amount of lukewarmness (and, in some quarters, strong opposition), which every surgical

discovery has met with more or less in its infancy, acupuncture has already obtained the confidence of, and is practiced by many British surgeons of eminence, and its youthful vigor bids fair to lead us to anticipate, that ere long it will become the exclusive method for arresting hæmorrhage in the medium and larger sized arteries, torsion being quite as effective, and more simple and expeditious for the smaller ones.

I will briefly state the various modes proposed by Professor Simpson.

The first method is performed by passing the needle from the cutaneous surface, directly through the whole thickness of the flaps, and causing it to emerge a little to the right side of the tube of the vessel. The projecting end is then pressed firmly against the site of the artery, made to reënter the flaps close to the right side of the vessel, and pressed until it emerges on the surface of the skin. In this method, the artery is compressed against the component parts of the flap.

The second method is performed with a needle threaded with twisted iron wire, and, unlike as in the first method, the skin is not interfered with; the needle is passed above instead of below the artery. The needle is pushed twice into the soft tissue of the wound. The first point of entrance is at a little distance from the artery to be acupressed, and the first point of exit close to it. The second point of entrance is close to the vessel on its opposite side, and the second point of exit at a little distance. Between the first point of exit and the second point of entrance, the needle is made to bridge over the trunk of the artery, and care must be taken before making the needle reënter the wound to pass down sufficiently to close the artery. The needle can be removed at pleasure by pulling the twisted wire.

The third method requires for its performance a threaded needle, and a loop of inelastic wire, and consists in effecting compression between the needle below, and the loop above the vessel. The needle is entered a few lines to one side of the vessel, and pushed behind it, caused to emerge a few lines beyond the vessel; the loop of wire is thrown over the point;

brought over the trunk of the artery, and behind the stem of the eye-end of the needle, drawn sufficiently to shut the vessel, and fixed by a half twist around the needle. It is important in the performance of this method, to avoid including an unnecessary amount of tissue; not to draw the wire tighter than is absolutely necessary to close the artery. By pulling the twisted wire the needle is removed, and the loop being liberated, is easily withdrawn.

The fourth method differs from the third, inasmuch as a long pin is substituted for the threaded needle. Little as the difference may appear, the pin should be substituted in all cases where the form of the wound, and the position of the artery admit of the head of a pin being conveniently, and without straining of tissue, kept without the wound. The pin is easier inserted and withdrawn.

There are several other methods adopted by various surgeons. Such as the twist and ring, adopted by Professor Pirrie and Dr. Keith, of Aberdeen; and others will, no doubt, in time suggest themselves. In the meantime, the third and fourth methods are the most satisfactory and efficient means of arresting hæmorrhages we possess.

According to the magnitude of the operation in which acupressure has been adopted, the needles or pins are withdrawn in from four to forty-eight hours after its performance.

It is believed by those who have adopted this method in a large number of cases, that less than four hours will be necessary in those operations.

In the minor walks of surgery, such as wounds over the temple, the introduction of a needle under the temporal artery, and a thread passed over it in the form of a figure 8, from eye to point, and secured, is the most efficient mode of arresting the hæmorrhage. In the same manner the needle may be passed under the facial artery as it crosses the lower jaw to arrest troublesome bleeding from deep gashes in the cheek; and in cases of wounds of the face, where it is important that little or no mark should be left, a fine needle, passed obliquely from one edge of the wound to the other, and a thread passed



over it in the manner already described, when heating by first intention invariably ensues, and little or no mark remains.

In cases of deep laceration and severe bruising of the face from falls or blows, on removal of the needle, the thread may be left to form a scab, and painted over daily with a weak solution of carbolic acid and glycerine. In such cases, where much bruising has been sustained, more or less suppuration is unavoidable. This is, however, very much lessened by adopting the carbolic acid dressing, either in conjunction with glycerine, or in the form of paste, as recommended by Professor Lester, of Glasgow, which seems to destroy most effectually the germs, whether they are generated in the atmosphere or in hospital wards, and very materially curtails pus formation, and accelerates the healing process.

In scalp wounds our colleges have hitherto taught us to treat them as follows, viz. : To remove the hair with scissors, a considerable portion of the scalp to be shaved to allow plaster to adhere—the clots of blood to be removed, the wound to be well washed, and should bleeding be troublesome, torsion of some of the vessels should be resorted to. When the edges are brought together, adhesive plaster and a cold compress are to be applied. A third injunction is laid down, not to use ligatures or sutures of wire, lest erysipelas should intervene. Contrast this with the following simple, expeditious and highly satisfactory method. In such a case the clots are removed, the wound thoroughly washed, a pin a little longer than the extent of the wound is inserted through the skin at the lower angle of, and about a quarter of an inch from the edge of the wound. The pin is then run along the raw surface of the lip, till the upper angle is reached, when the point of the pin is made to appear through the skin at the proper level and distance from the raw edge; then a few turns of ordinary linen thread are passed in figure 8 form, from head to point of the pin. All bleeding vessels are thus completely compressed between the pin against the tissues below, and the thread above. A second pin is applied in a similar way along the

other lips of the wound, and thread applied over it, same as in the first. The edges of the wounds are brought together, and kept in close apposition by a few turns of thread passed from the head of one pin to the point of the other, and *vice versa*. The hair is then brought over the wound, and the dressing is complete. The pins may be withdrawn in from twenty-four to forty-eight hours, and the thread allowed to remain until healing by first intention is completed, and no fear of erysipelas or other untoward symptom need be anticipated.

#### PAPER II.—RADICAL TREATMENT OF CHRONIC BLENNORRHOEA.

CASE 1.—Mr. —; aged 36 years; tall and spare, of regular habits; states that he has had gonorrhœa four times; first attack at the age of 18 years, and that each renewal was with stubborn gleet, and for the last six years he has had an unremitting mucoid discharge from the urethra. He placed himself under the care of several physicians of eminence, and notwithstanding patient perseverance under treatment for a considerable length of time, the annoying blennorrhœa continued unaltered.

May 2nd, 1868. He has congenital phymosis, urethral canal only admitting a No. 4 bougie, which reveals a stricture two inches from the orifice, and also at the bulb. The whole urethral canal in a granular condition. No particular spot evincing pain in external prepuce.

Introduced a No. 2 bougie, coated with mucilage, thickly covered with powdered nitrate of silver; allowed it to crystalize, leaving two inches of the point of the bougie free to avoid unnecessary irritation of the bladder; introduced with care to secure proper contact of cantorants in the prostatic portions of the urethra; allowed it to remain ten minutes, when the nitrate of silver had all disappeared; acute pain always followed, with a frequent desire to micturate, the urine being tinged with blood. The pain, which was most intense, as the glans-penis gradually subsided in the course of a few hours. No

rigor or other untoward symptom followed. A free purulent discharge was established on the following day, and expotiation of the mucous membrane occurred on the fifth day after the application of the escharotic. He had slight aching pains in the region of the bladder extending down the thighs, with thick mucoid deposits in his urine, which had alkaloid reaction. This constitution of his urine he remarked, had existed many months before he came under my notice. Strange to say, that after a few days treatment with diluted phosphoric acid and infusion of *Buchu*, the mucoid deposit entirely disappeared.

A fortnight after the curved bougie had been introduced, I performed Ricord's operation for phymosis, with the slight modification of uniting the mucous membrane and skin of the upper half-circle with two sutures, leaving the lower portion free to granulate, and avoid unnecessary contraction at the frænum. This healed very neatly in three weeks, leaving the glans penis quite uncovered, without any unseemly side-flaps. Two weeks more sufficed to cure the intractable blennorrhœa.

REMARKS. — Specific inflammation of a mucous membrane, the result of contagion, is always considered a much more serious matter than simple inflammation resulting from an accident. In gonorrhœa, one of the specific class, the mucous lining of the urethra, in the early stage, is of a deep red color; the epithelium having disappeared, it has lost its smooth and shining appearance; and this, in its turn, is followed, as the disease advances, with erosion, ulceration, and granulation, which gradually extends back towards the prostate gland, which seems to be justly considered the seat of blennorrhœa.

A granulated condition of a canal, such as the urethra or cervix uteri, necessarily requires direct application of suitable cauterants for their healthy restoration. It is simply futile to suppose that medicine can ever affect a cure in such cases, without proper local treatment. A granular condition of the urethra may very properly be compared with the same condi-

tion of the eyelids, which are speedily brought under control with gentle cauterization.

We therefore feel warranted in urging urethral cauterization, as a safe and speedy remedy in all cases of obstinate chronic gleet.

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## CORRESPONDENCE.

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PHILADELPHIA, July 14, 1868.

*To the Editor of the Chicago Medical Journal :*

CASE 1.—J. W. ; age 59. For seventeen years has been totally blind in both eyes, having a hard cataract. Was brought to the clinic, where Dr. Lewis operated, by displacing the lens. The operation was eminently successful. The patient did well, and yesterday I saw him,—five weeks after the operation,—and he could read distinctly, seeing as well from one eye as from the other.

CASE 2.—Mary O. S. ; age 41. Twelve years ago had a distressing labor of two days. "The forceps were applied several times. After two days the child's head was extracted, dead. It was "mashed in on both sides," and otherwise distorted. Examination *per vagina*, now shows uterus hypertrophied. The uterus and the bladder both lie in the mouth of the vagina. Uterus presses heavily on the bladder, which is below the symphysis, and between the rami. Incontinence of urine. Several minute vascular tumors of the urethra present. A colpeurynter was introduced, which gave her but little pain, but prevented her from making water. It was removed five hours after introduction, to enable her to urinate, but was immediately re-introduced ; was obliged to repeat the operation every two hours in order to pass her water. For one week the patient used the instrument faithfully, and the symptoms of incontinence of urine disappeared. Before its use, was obliged to pass her water nearly every five minutes.

The colpeurynter gives her but little pain. After wearing this instrument seven weeks, it was observed that it only did good while in use, and at the end of this time, whenever it was removed, the symptoms all reappeared with no diminution in severity. Chloroform was accordingly administered, and the old cicatrices of the ruptured perineum were nicely trimmed and freshened with the scissors, and the edges then brought together with quilled sutures. A curious feature presented itself during the operation. At the time of the commencement of the inhalation of the chloroform, the colpeurynter was in the vagina. At the first clip of the scissors she experienced some pain, and evidently, in her semi-conscious state, imagined she was in labor, and at once *commenced to bear down with all her force*. At about the usual intervals of labor pains, and coming on at regular intervals, she would bear down, pressing outward the colpeurynter, which she evidently supposed to be the *child's head*. As soon as this was *born*, she evidently seemed to experience very much relief, and in a few moments commenced to be excessively hysterical, laughing, sobbing and crying out at short intervals. Soon after the operation, the colpeurynter was again introduced, and the patient given  $\frac{1}{4}$  gr. *Murph. Sulph.* The following day, although there had been some little infiltration of urine, still she was comfortable and doing well. Gave Dover's powder. On the ninth day all dressings were removed. The parts had united nicely, and the difficulty in urination had entirely subsided, and the patient was discharged *cured*.

E. R. HUTCHINS, M.D.

## EDITORIAL.

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### **"The Western Tripod of Medicine."**

UNDER this caption the *Leavenworth Medical Herald* bewails the unhappy results of the low fees of the Medical Colleges in Cincinnati and Chicago, as contrasted with the high fees, nominally, charged in St. Louis. The amiable writer is evidently sincere in his opinions, but he must pardon us for saying, "he has got hold of his pitcher by the wrong handle."

All his article is based upon two assumptions, neither of which (he must excuse us for saying), is supported by the facts.

The first assumption is contained in the following paragraphs:

"We have hitherto confined our remarks in great measure to the low standard of the doctorate in our country, and the utter absence of that uniform grade of acquirement, which should be universally and peremptorily demanded as the just equivalent of a most honorable distinction. Though the great mass of the medical profession, appreciating the debased level to which the shallow flooding by the colleges must reduce their noble calling, have been actively agitating the question of a wholesome reform, yet the professional ambition and the collegiate rivalry have resulted in the unnecessary multiplication of schools, and in some instances, in an unworthy and almost commercial strife for patronage.

As though it were not bad enough, however, to open the portals of a most intricate and profound science to whomever may present himself with the nummular password, regardless of any intrinsic adaptation to, or acquired fitness for, the exalted position to which he aspires, some of our western schools, by reducing the feeble barrier erected by a reasonable monetary requirement, have almost obliterated the last obstacle to a universal flooding of the ranks medical; and have made the creation of a modern doctor of medicine but the question of some fifteen months of time, with the expenditure of about one hundred dollars in money."

To which, the present writer, as one who has been connected with Medical Colleges nearly the entire time for the last quarter of a century, respectfully replies, that the mere fact of the presence or absence of fees has no logical or practical relation to the character of the lectures in either of the colleges alluded to, or in any other college he has ever

known. The matter of high or low fees has no logical or practical relation to the standard of qualifications required for the doctorate here or elsewhere.

It is a novel idea that increasing the opportunities of young men to acquire professional or any other knowledge, is in the nature of things an encouragement for ignorance. If so, our magnificent system of primary schools, academies and colleges in this country had better be abandoned at once. As a matter of history, low as may be the *status* of the profession at the present time, it has wonderfully improved since the introduction of medical colleges in the North-west. The colleges may not have brought up the profession to the high point of attainment deemed practicable by some enthusiastic optimists, but they have accomplished a great work already, and are steadily advancing its best interests.

We will not speak for Rush College for obvious reasons, but let its 1,200 alumni speak for it if needed—as it is not. But we will vouch for Cincinnati, with whose teachers Chicago has none but the most amicable competition, that it affords as good lectures, and turns out as well qualified graduates as any school in the Union, with double or triple its fees.

The second assumption is (by necessary inference), that the low fees charged by the colleges in this city and Cincinnati are the result of their mutual competition, and it is intimated that both parties are ashamed of it, and each disclaims the responsibility. Although not one of the "distinguished" gentlemen to whom the *Herald* refers, we can satisfy its anxiety for information by informing it that neither Chicago nor Cincinnati are responsible. The *Marplot* in the fee business was the (now moribund) Medical Department of the University of Michigan at Ann Arbor, which swept out of existence, at once, all fees, except a trivial one for matriculation. No perfection of lectures or clinical advantages could compete with this *enfant terrible*. The names of world-wide celebrities would have counted for nothing with the swarms



that went greedily down to that home of the prophets. They "went for their diplomas and got them."

At that time the "Phantom in Black" (*Lancet*) occupied a chair in the medical college of this city, and he proposed to make that college a *free* school also. Fees every where went tumbling, or if this did not nominally occur, lavish credits were given on the ostensible fees, which amounted to the same thing, or worse. "We speak what we do know."

From the date of its re-organization, in 1859, Rush College has been anxious to restore fees to their former scale. But he knows little of business who believes that any medical college will cut its own throat to accommodate the notions of men who have no practical acquaintance with carrying on successfully an institution of the kind.

As a mere matter of business protection, all the fee-charging schools should have combined to refuse to receive the tickets, or acknowledge the diplomas of the Ann Arbor concern. This was the prime error. Its effect was continued in the absurd refusal of the so-called Teacher's convention at Cincinnati, endorsed (to get rid of it) by the American Association. That convention, perpetrating a mass of balderdash and Utopian vagaries, omitted the only practical thing they could have usefully meddled with. This, again, was the work of the "Phantom," aided by his ineffable shadow and toady in the interest of Ann Arbor.

We shall probably refer to this subject again, although our own private impression is that the best way to build up a medical college, and "elevate the profession" thereby, is to stop chattering about it and go to work. We are instigated to this "by the honorable memories clustering around our institution."

One thing more. Our earnest friend fears that the time is approaching when he shall be obliged to "advocate a trans-Atlantic diploma, as the only true evidence of medical qualification." This, with our experience, is rich. Why, Brother *Herald*, to-day a diploma from any one of the schools you inveigh against, is worth more (little as it may be), as

such *evidence*, than a dozen old world parchments piled one upon another. The graduate of almost any respectable American college will secure successful practice all around him, whilst the trans-Atlantic is *un-learning* that which is but a clog and burden to him.

### *The Inconveniences of being a Good Fellow.*

The sweetest milk of human kindness will sometimes cream with righteous wrath, even though it may not acidulate in expression. All doctors are pre-supposed to be, *ex officio*, good fellows, and their offices appropriate places for other good fellows to congregate. Cigars, meerschaums, politics, gossip and tobacco-spittle pollute their ante-rooms, and even the inner *sanctum* is invaded. If a patient be not actually by the consulting chair, the *good fellow* is supposed to have nothing to do, and he is expected to devote his attention to helping empty-headed idlers to kill *their* time. The *good fellow* is to listen at all times, in genial mood, to tedious and long spun out narrations of imaginary ailments, and take his reward in additional notes to the continuous refrain which sounds his amiable disposition. As he is, of course, of charitable nature, he must attend all the poor in his neighborhood free of charge, whilst those able to pay are neglected, to be seized upon by Dr. Crusty over the way. Or, as usually happens, his own *able* friends will fail to call upon him in paying cases, because he is so kindly disposed, that he is anxious to have even his rival succeed. When Dr. Crusty has secured all the patient's money, and utterly failed to afford relief, the dilapidated carcass and empty pocket-book are straightway to be found in the ante-rooms of the *good fellow*. When Dr. Crusty has a paying case which he fails to relieve, he puts on a smoother face and asks *good fellow* his opinion and what to do. If benefit results, Dr. Crusty pockets the credit and the fee—if the issue is not favorable, the chance for a paid consultation or subsequent charge of the case, is foreclosed by the grave announcement: "I have already had the advice of the *good fellow*."

When a case is treated and the bill at last sent in, it is the last paid, "For, you know, the doctor is a *good fellow*, and won't mind it."

No one goes near *Crusty* for a subscription or any charitable purpose. *Good fellow's* office is always thronged like a town meeting for the benefit of the poor.

By a *good fellow*, herein, is not meant one who, in Yankee parlance, is styled "a *clever fellow*," an easy going, unsophisticated, little more than half witted chap; but a man with a head full of brains and information, which he gives away for the asking to those who either lack the former, or are too lazy to work for the latter. He can not say No! although his friends (?) are all the time robbing him of a capital more valuable than gold. Ten to one, should misfortune overtake him, these creatures will say: "He's a *good fellow*—BUT"—and a shrug and a wink are the sluice gates of a flood of calumny, or, at best, of depreciation.

Young *Æsculapian* friend—for Heaven's sake don't seek the reputation of being a *good fellow*.

### ***Extra Eight Pages.***

Eight pages are added to the present number. The press of valuable original and translated matter is such that we must still beg pardon of correspondents whose articles are delayed in appearance. A large number of papers on *Shoulder Presentations*, we have placed in the hands of a competent friend, who promises us a digest of them, with general practical comments. The article promised on the new process of preserving the *cadaver*, was crowded out of this number, and as it has been generally published in other medical journals, will not be published in this, unless its insertion is especially requested.

### ***Arrearages.***

Subscribers who have allowed themselves to get in arrears for the JOURNAL are particularly notified that its business matters have, since January last, been placed in the hands of our thoroughly competent and accurate publisher, who means to conduct every thing in a business way. The editor has

not, and will not write dunning letters. But the publisher has no respect of persons, and proposes to keep harping on the business strings until the JOURNAL secures that ample pecuniary independence it has fairly earned. It is our intention to publish *weekly*, from and after next January, which will necessarily involve a large increase in expenditure. We propose to fortify in season. "Short accounts make long friends." There is not, we repeat, the slightest occasion for those who are dunned to write the editor sharp, smart or lugubrious replies. They only help to fill the waste basket.

The price of the JOURNAL, as has been advertised in every number, is THREE DOLLARS *per annum* in advance—if not paid within six months, FOUR DOLLARS. Any publisher will inform subscribers that the advance payment is worth much more to him than the delayed one, even at the increased price. To encourage in well-doing, however, we propose to those still in arrears to abate the extra dollar on subscription if the account is settled within thirty days from the receipt of this number of the JOURNAL. All mistakes cheerfully rectified.

### *Peccavimus.*

The even tenor of the JOURNAL's way, and the harmony which should every where prevail in its columns, was broken and jarred in the last number by the introduction of a communication bearing upon medical ethics, politics and civil war. We know nothing (and care less), about the allegations involving individuals therein made. Our pigeon-holes are crammed with papers communicating instances of violations of the "Code," by men high in professional rank, and case after case, either of mistaken diagnosis, or willful fraud, by practitioners whose names are in the odor of medical sanctity, but we forbear assuming this kind of scavenger work. We have no stomach for "policing the camp." The scattered rattle of the rifles of the frightened pickets disturbs the army more than all the batteries of the enemy. Our big guns are aimed at IGNORANCE, not at individuals, and we propose to fight it out on *that* line to the end of our editorial life. If a little wholesome discipline is occasionally needed by *noisy* subalterns or *brigadiers*, the JOURNAL will conduct its own *courts-martial*. Meanwhile, "Dress up on the right!"

*Chicago Hotel for Invalids.*

Attention is directed to the advertisement of the reorganization of this much needed institution. It will be noticed that patients have full liberty to select their own medical attendants, provided these are of recognized respectability. With this modification, and the other advantages afforded, we have every confidence that the Hotel for Invalids will soon acquire general popularity with both the profession and the public. From personal knowledge of the intentions of the managers, we are sure that everything will be conducted with scrupulous regard for the proprieties of the code.

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*FOREIGN NOTES AND EXCERPTA.*

M. GUIBORT lately brought before the Medical Society of the Hospital of Paris, a man fifty years old, who had passed seven iron rings over his penis towards the pubes. The result was severe constriction, followed by apparent gangrene. M. Richard attempted in vain to cut the rings with pliers, and a subsequent attempt with a clockmaker's saw was successful in cutting two of the rings after the destruction of six or seven saws. M. Mathien, a skillful surgical instrument maker, by means of the most powerful pincers, saws and pliers succeeded in removing the remaining five. The gangrenous inflammation was arrested, and the organ saved.

In a similar case recorded by Natalis Guillot, a gold wedding ring was used for a similar purpose. In this case the part was plunged in liquid mercury, which dissolved the ring.—*Lancet*.

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A CASE of *Ectropia Vesicæ* has been exhibited to the Clinical Society of London. The vagina could be traced and the uterus could be felt through the rectum. The labiæ were fully, but the nymphæ only slightly developed; the pubes cleft, and the abdomen deficient in the middle line from the umbilicus downwards. In this case the bladder was covered with a structure resembling skin, as low as the level of the ureters, and this surface did not cause trouble from its irritability.—*Lancet*.

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M. GUBLER, Professor of the Faculty of Medicine of the Hospital Beaujon (Paris), and Vice-President of the Therapeutical Society, in a review of the French Codex, asserts that *Albumen* plays a much more important part in therapeutics than has been hitherto assigned to it. That in relatively large doses it becomes a solvent for substance considered insoluble, and even for those, which, in other proportions coagulate it firmly. Moreover, that the substances thus dissolved lose at the same time some of their chemical properties, and the reactions which they ordinarily occasion are thenceforward prevented.

This fact is susceptible of numerous and various applications in therapeutics. Not only should albumen be prescribed rigorously in every form containing coagulable substances, but if it is desired to produce general or diffused effects, it will often be advantageous to prepare beforehand albuminous solutions of the active principles with the precaution demanded for these delicate preparations. As albumen dissolves iron, it is proposed to administer this metal in a state of minute division. The process might be extended to many metallic preparations, with which albumen might be charged, whenever their general and alterative effects are desired. In solution, in the form of albuminates, iron, manganese, copper, mercury and silver, would exercise no injurious influence upon the *primæ viæ*, would penetrate the circulation more readily, and would present at once, as it were, a first degree of assimilation.

COPAIBA.—M. Gubler states, is a compound of volatile oil and of copahivic acid, which is a resin. The essential oil is eliminated by the lungs, and the resin by the kidneys, hence in the treatment of blenorrrhagia, if copaiba, deprived of its essential oil be administered, the efficiency of the drug will not be diminished, and the patient be relieved from that horrible breath which betrays it.

ABOUT THE ABSORPTION OF MEDICINES.—M. Demarquay remarks that the time included in experiments upon absorption should be divided into four periods. 1st. That occupied by the drug in reaching the absorbent organs. 2d. That by its retention in the blood. 3d. That consumed in its elimination, and—4th (in the case of drugs eliminated by the kidneys). That of its retention in the bladder.

These experiments give only a distant approximation to the period extending between the administration of the drug and its absorption. M. Demarquay confined his experiments to *Iodide of Potassium*, and determined that after having been administered by the mouth, it was eliminated by the kidneys in from nine to fifteen minutes; but this period was not constant, for in some of the experiments the drugs could not be recovered at all. The same dose administered by the rectum exhibits itself in the urine much more constantly in from two to seven minutes. The drug introduced through the mucous surface of the bronchi in atomized water could be detected in the saliva in five to six minutes.

After sixteen injections of the iodide into the bladder, eight times the drug could not be recovered, and in the other eight cases it appeared in the saliva in from thirty five minutes to six hours after the injection.

The salt, when in solution, was absorbed but feebly by the skin, when quite actively where applied in a pomade.

PUERPERAL CONVULSIONS.—Dr. T. C. Osborn, Greensboro, reports in the July number (1868) of the *New Orleans Journal of Medicine*, a case of recovery from "Eclampsia Bimiparturientis," under the use of chloroform, the forceps and morphia hypodermically. "Protests against indiscriminate bleeding," anterior to delivery.

CÆSARIAN SECTION.—D. Warren Brickell, Professor of Obstetrics in the New Orleans School of Medicine, reports in the same journal a successful (to both mother and child) case of this operation, after a labor of ten days' duration, the necessity of which originated in friability of the tissues of uterus and vaginal adhesion, nothing abnormal being observed in the bones. The novelty in the operation was the necessity of closing the uterine incision with sutures (silver wire), which were permitted to remain, and after five months had occasioned no inconvenience. The entire wound healed by first intention.